

IN THE CLAIMS:

Please amend claims 1-9, 11-14, 16, 18-22, 29, 31, and 32 and cancel claims 10, 15, 17, and 30 without prejudice as follows:

1. (Currently amended) An apparatus for processing a security setup control message in a mobile communication system, the apparatus comprising:

means for receiving the security setup control message comprising a reference authentication code;

means for verifying [[the]] integrity of the received security setup control message by generating an expected authentication value using security variables included in the received security setup control message and comparing the expected authentication value to the reference authentication code,

wherein [[the]] a value of at least one security variable is updated with new security setup information according to the received security setup control message if the integrity of the security setup control message is verified, and the value of the at least one security variable remains unchanged if the integrity of the security setup control message is not verified.

2. (Currently amended) The apparatus of claim 1, further comprising means for storing [[the]] a previous value of the at least one security variable before it is being updated with the new security setup information.

3. (Currently amended) The apparatus of claim 2, wherein the means for storing the previous value of the at least one security variable comprises a memory unit.

4. (Currently amended) The apparatus of claim 2, wherein the means for storing the previous value of the at least one security variable comprises a shift register.

5. (Currently amended) The apparatus of claim 1, wherein the means for verifying the integrity of the security setup control message comprises a processor.

6. (Currently amended) The apparatus of claim 1, wherein the means for verifying the integrity of the security setup control message comprises software stored on recording media.

7. (Currently amended) The apparatus of claim 1, wherein the new security setup information is extracted from the received security setup control message.

8. (Currently amended) The apparatus of claim 1, wherein the apparatus is located in [[UE]] user equipment (UE).

9. (Currently amended) The apparatus of claim 1, wherein the apparatus is located in the UTRAN a universal mobile telecommunications system (UMTS) terrestrial radio access network (UTRAN).

10. (Canceled)

11. (Currently amended) The apparatus of claim ~~40~~1, wherein the means for verifying the integrity of the received security setup control message comprises a standardized integrity check authentication generation algorithm.

12. (Currently amended) A method for processing a security setup control message in a mobile communication system, the method comprising ~~the steps of:~~

receiving the security setup control message comprising a reference authentication code;

verifying [[the]] integrity of the received security setup control message by generating an expected authentication value using security variables included in the received security setup control message and comparing the expected authentication value to the reference authentication code; and

processing the security setup control message and updating [[the]] a value of at least one security variable with new security setup information according to the received security setup control message if the integrity of the security setup control message is verified, and discarding the security setup control message and leaving the value of the at least one security variable unchanged if the integrity of the security setup control message is not verified.

13. (Currently amended) The method of claim 12, further comprising storing ~~[[the]]~~ a previous value of the at least one security variable before ~~it is~~ being updated with the new security setup information.

14. (Currently amended) The method of claim 12, further comprising extracting the new security setup information from the security setup control message.

15. (Canceled)

16. (Currently amended) The method of claim ~~45~~12, further comprising performing a standardized integrity check authentication generation algorithm.

17. (Cancelled)

18. (Currently amended) The method of claim ~~47~~12, wherein the security setup control message is processed if the received reference message authentication code is equal to the expected ~~message~~-authentication value, and the security setup control message is discarded if the received reference message authentication code is not equal to the expected ~~message~~ authentication ~~code~~ value.

19. (Currently amended) The method of claim 12, wherein the security setup control message is an RRC (radio resource control) message.

20. (Currently amended) The method of claim 12, wherein the security setup control message is a signaling message.

21. (Currently amended) An mobile station for processing a security setup control message in a mobile communication system, the mobile station comprising:
an RF module;
a power management module;

an antenna receiving the security setup control message comprising a reference authentication code;

a battery;
a keypad;
a memory unit;
a speaker;
a microphone; and

a processing unit adapted to verify the verifying integrity of the security setup control message by generating an expected authentication value using security variables included in the received security setup control message and comparing the expected authentication value to the reference authentication code.

wherein [[the]] a value of at least one security variable is updated with new security setup information according to the received security setup control message if the integrity of the security setup control message is verified, and the value of the at least one security variable remains unchanged if the integrity of the security setup control message is not verified.

22. (Currently amended) The mobile station of claim 21, wherein the memory unit ~~is adapted to store the~~ stores a previous value of the at least one security variable before it is being updated with the new security setup information.

23. (Previously presented) The mobile station of claim 22, wherein the memory unit comprises a shift register.

24. (Previously presented) The mobile station of claim 21, wherein the memory unit comprises a flash memory.

25. (Previously presented) The mobile station of claim 21, wherein the memory unit comprises a ROM.

26. (Previously presented) The mobile station of claim 21, wherein the memory unit comprises an SRAM.

27. (Previously presented) The mobile station of claim 21, wherein the processing unit comprises a microprocessor.

28. (Previously presented) The mobile station of claim 21, wherein the processing unit comprises software stored on recording media.

29. (Currently amended) The mobile station of claim 21, wherein the new security setup information is extracted from the security setup control message.

30. (Canceled)

31. (Currently amended) The mobile station of claim ~~30~~21, wherein the processing unit comprises a standardized integrity check authentication generation algorithm.

32. (Currently amended) The mobile station of claim 21, further comprising a subscriber identity module (SIM) card.